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APRIL.

Next came fresh April, full of lusty hed,
And wanton as a kid whose horne new buds;
Upon a bull he rode, the same which led
Europa floting through th' Argolic fluds:
His horns were gilden all with golden studs,
And garnished all with garlands, goodly dight
Of all the fairest flowers snd freshest buds
Which the earth brings forth; and wet he seem'd in sight
With waves, through which he waded for his love's delight. SPENSER.

APRIL was formerly the second month in the year, but is now the fourth. The Latin word from which April is derived is *Aprilis*, which comes from the verb *aperio*, to open, or spring forth, and is therefore descriptive of the season, because in April the energies of animal and vegetable life are awakened and a new generation of animals and plants appears. Our Saxon ancestors called this month *Easter monath*, because in this month they celebrated the feast of their goddess *Easter*, or *Eastre*. And when the Saxons received Christianity, and with it the Christian festival in commemoration of our Saviour's resurrection, they transferred the name Easter to that, and hence the term *Easter Sunday*, &c.

April is usually represented by a girl clothed in green, with a garland of myrtle and hawthorn buds, holding in one hand primroses and violets, and in the other the zodiacal sign, *Taurus*, into which constellation the sun enters about the 19th of the month. The Romans consecrated the first of April to Venus, the goddess of beauty, the mother of love, the queen of laughter, and the mistress of the graces; and the Roman widows and maidens assem-

bled in the temple of Virile Fortune, and disclosing their personal deformities, prayed the goddess to conceal them from their future husbands.

The practice of *fool making* on the first day of April is very ancient and has prevailed very generally in Europe, and in this country, but is now growing into disuse, and is hardly thought of among us at the present day. In the north of Britain it is called *hunting the gawk* and the French call it "*un poisson d' Avril.* April fooling as practiced by children is thus described, by an English writer:

Then indoor young ones club their wicked wits,
And almost frighten servants into fits—
"Oh, John! James! John!—oh, quick! oh! Molly, oh!
Oh the trap-door! oh Molly! down below!"
"What, what's the matter!" scream with wild surprise,
John, James, and Molly while the young ones' cries
Redouble till they come; then all the boys
Shout "*Ah you April fools!*" with clamorous noise,
And little girls enticed down stairs to see,
Stand peeping clap their hands, and cry "*te-hee!*"
Each gibing boy escapes a different way,
And meet again some trick, "as good as that," to play.

For the Green Mountain Repository.

THE PLOT RIVER.

This is a small mill stream in Chittenden County, Vermont. It rises in the southeastern part of Hinesburgh, and running northwesternly through a corner of Charlotte and through Shelburn, falls into the head of Shelburn Bay. It is about fifteen miles in length.

As every thing relating to the early history of Vermont must be interesting to the inhabitants of this state, I have thought that the readers of the Repository, in this section of the country particularly, might be pleased with a narrative of the event, which gave name to *the Plot* river, or *La Plot*, as it is sometimes called. An account of this affair has not, to my knowledge, ever been recorded, but the circumstances were frequently related to me in early life; and, as I was born and bred within one hundred rods of the fatal spot, I have no doubt of their correctness.

It is well known that the hostilities of the Indians, instigated as they were by the French in Canada, rendered the first settlement of Vermont extremely difficult and dangerous, particularly along the borders of Lake Champlain, and the constant exposure of the settlers to be attacked and plundered by a blood thirsty and rapacious foe, for some years very much retarded the progress of the settlements. The repeated assaults from the Indians compelled the settlers to arm in self defence, and to hold themselves in readiness to march at a moment's warning, to the assistance of their friends and neighbors. It was in this state of things, in the fall of the year 1775, that a party of Indians was discovered making their way up Shelburn Bay in their bark canoes. Their motions were watched, and expresses immediately sent to alarm and assemble the few scattered inhabitants. The Indians having proceeded to the head of the bay, entered the river and landed about one hundred rods above the mouth on the west side, and having drawn their canoes on shore at this place, they proceeded to a small settlement about half a mile distant, where they began their work of plunder.

The inhabitants having collected, to the number of ten, a consultation was held respecting the course proper to be pursued. Believing that the Indians, if vigorously attacked, would make a precipitate retreat to their canoes, and hasten back to the opposite side of the lake, they now formed *the plot*, which finally resulted in the destruction of every individual of the enemy. Three of the settlers were dispatched to scuttle, and thus render useless, the canoes, which the Indians had artfully concealed on the bank of the river, and there in ambush, await the result; while the other seven were to make a furious assault upon the Indians, who were marauding the settlements, and, if possible compel them suddenly to betake themselves to their disabled canoes, rightly supposing that they would immediately fill with water and so disconcert the savages as to render them an easy prey.

The plot succeeded to the utmost of their expectations. The onset of the seven, favored by the approach of night, was made with such order and spirit as to lead the Indians to suppose that they were assailed by a force superior to their own, and that their only chance of escape consisted in a hasty retreat to their canoes. They accordingly betook themselves to flight, and, being closely

pursued by the settlers, they made directly to their canoes, seized and hurried them into the river, and embarked with the utmost precipitation. But what was their surprise when they found their canoes were all filling with water! It was in this forlorn condition that they were attacked by the three men, who were concealed upon the bank of the river; and, the pursuing party soon coming to their assistance, the Indians were all, in a few moments, either shot, while struggling to keep themselves afloat upon the water, or sunk to rise no more—not an individual being permitted to escape to tell to their kindred the tale of wo. At low water the bones and arrow-heads of this ill-fated band, may be found upon the spot at the present day. This well contrived and successful plot gave name to *The Plot River*. L. T.

Shelburn, April 17, 1832.

Remarks upon the present mode of conducting Land Surveys in the United States; by EDWIN F. JOHNSON.

CONTINUED.

Among the most prominent of the existing evils may be mentioned that of the general incompetency of surveyors, both as it regards the requisite preliminary qualifications, and a proper practical knowledge of their profession. It is an opinion too prevalent with many that the surveyor's art, as it is termed, is of easy acquisition, and may be attained by an individual of moderate capacity, and very moderate acquirements, in a short space of time. This impression is assuredly a very erroneous one, and for the general good ought to be corrected. It has been and is now often the case that young men who are but imperfectly acquainted with the principles of common arithmetic, and who, by the cursory perusal of some of the ordinary treatises on surveying, have acquired but a very superficial knowledge of the subject, are permitted to practice under sanction of such rules as our state Legislatures have thought proper to prescribe. The result of this incompetency is, that in some instances calculations of measurement, instead of being made by a rigid and correct trigonometrical or arithmetical process, are effected by such uncertain means as the accuracy of scales, or of measurements made with dividers upon a miniature draught or plan, may afford. It is very frequently the case likewise that many in making computations, are restricted as it were

to a mechanical use of the rules by which they arrive at results, and as they have never been thoroughly inducted into the principles on which those rules are based, are often at a loss or led into error when a case occurs out of the ordinary course, or of a character different from what they have been accustomed to meet with in practice. It would not be difficult to specify numerous instances of these disqualifications, but I shall content myself at present with mentioning only one. In a certain township in New England where the lots are laid out in the form of oblique angled parallelograms, the resident surveyor for a long time followed the method of casting or computing them as though they were squares or rectangles, and he continued in this practice until he was undeceived by an individual who was not a surveyor, but who had common discrimination enough to detect the error. The history of surveys in different parts of the country is replete with examples of this character, but the one I have adduced will suffice to illustrate the nature and extent of the class of evils to which it refers, and I will proceed in the next place to notice some other evils which result, not so much from incapacity in the surveyors themselves, as from imperfections in their instruments.

In comparing the instruments of different surveyors, particularly their circumferentors, it is seldom that any two of them are found to be constructed alike. The artist employed in their fabrication almost invariably deviates in some respect from others he has seen to favor some conceit of his own, or to suit his peculiar taste and sense of propriety, but their improvements as they are termed, are generally nothing more than alterations; and the reason is plain, for those who make them have commonly little theoretical and no practical knowledge of the subject. As instances of the imperfections alluded to, the following may be mentioned. The radius of graduation is frequently too small, thereby diminishing the effect of the force by which the needle is brought to' and retained in, the direction of the magnetic meridian, and likewise rendering the divisions upon the circle smaller than is proper for the correct reading and determination of the fractional parts. The needles are not always finely pointed and their extremes brought close enough to the edge of the graduated circle.

Their shape instead of being the best, viz. that of exposing the greatest surface, is often the reverse. They are likewise often in-

accurately poised, the point of support not being sufficiently near the centre of gravity of the needle, and in a line with its extremes. The bearing point at the centre of the needle is frequently not formed of the best material as it regards resistance from friction, and the instrument is but seldom provided with verniers for obtaining fractions of degrees, or with spirit levels for regulating the perpendicularity of the *sights*, circumstances of great importance as it respects the accuracy of an observation. In the use likewise of this instrument there are many sources of error which are not always understood and of course not guarded against. The needle, from disuse or other causes, not unfrequently loses much of its power, and becomes less susceptible of the magnetic influence, from the resistance of a free and easy motion occasioned by the accumulation of rust or other obstruction at its point of support. Precautions are not always taken to ascertain whether the needle, in making an observation, is influenced by local attraction of a magnetic character, and whether it is not likewise influenced by causes confined to the instrument itself. I allude now to the effect of the electrical fluid which sometimes collects on the glass of the instrument, a circumstance which probably more than any other, operates in diverting the needle from its proper direction.

In addition to the preceding may be mentioned the want of skill in the mode of effecting the adjustments, and the reliance which is too often placed upon the trunks and tops of trees, &c. as objects of sight in the tracing of lines, together with the errors of the chain, resulting from the wear and consequent stretching of its parts, the ignorance and carelessness of chainmen and from other causes which it is not important at present to detail.

The disagreements which have been known to exist in measurements made by different surveyors may be attributed to a part or all of the causes above recited. The influence of those causes is indeed often so great that the "balance of errors" constitutes one of the most important items in a surveyor's estimate of the result of his measurement.

The preceding remarks upon instruments for the mensuration of angles have reference exclusively to the circumferentor, and they are thus directed under the conviction that for a length of time to come, instruments of that description must continue to be used as a principal dependence in the tracing of lines in all surveys

in this country. Indeed, the possession of a good theodolite or other similar instrument by any of our surveyors would in the present state of things prove almost an anomaly, and, if I mistake not, the day has not long passed, if indeed it has quite gone by, when some of our Surveyor Generals were unprovided by their respective states with any instruments of an order superior to the common circumferentor or compass.

The little expense and study demanded in preparing an individual for this department has caused it to be filled by many who are quite incompetent to the correct discharge of its duties, and of course has depreciated it very much in the estimation of the public. So great is the number now engaged in this profession, compared with the business to be done that few are willing professedly to qualify themselves and to incur the expense of providing the requisite instruments, and perhaps an instance can scarcely be found, especially in the older states, of an individual deriving a respectable and competent support from surveying business alone. Under these circumstances it cannot be expected, that the profession in comparison with others, should take a very high rank, or one corresponding at all to its importance.

I do not presume to say that there are not many of the profession who deservedly sustain a higher character than I have described. The remarks which I have made will however I think apply generally and with justice.

A state of things like this must obviously be attended with many consequences unfavorable to the interests of the community generally. The various litigations and disputes about boundaries, which our courts of justice are constantly called upon to decide, are most of them either directly or indirectly the result of the present loose and imperfect method of conducting land surveys. This evil is not however, it must be acknowledged, confined exclusively to the surveyors. Many of our lawyers, who are entrusted with the drafting of instruments of conveyance, are often deficient in the knowledge requisite to render their descriptions of land correct and to place them beyond the possibility of a misconstruction. The only instruction which this class of men usually receive on this important subject is the scanty amount ingrafted into a collegiate course, embracing perhaps a knowledge of the method of instituting a few proportions and resolving a few problems in plane

trigonometry, but which can by no means be regarded as embraceing a knowledge of surveying, in its more enlarged and appropriate sense. It is a mistaken idea, that an individual who can count the divisions on a graduated circle and repeat a few propositions in geometry, is competent to the correct tracing of lines or the performance of the various duties of a surveyor. The directive property of the magnetic needle is truly productive of the greatest service to mankind, but like many other agents in nature it loses much of its value in unskilful hands, and a similar liability to error is incurred in other matters relating to the subject by those who are not thoroughly and scientifically versed in the practice of the profession.

TO BE CONTINUED.

From the Olive Branch.

BIOGRAPHY OF JOHN ADAMS, SECOND PRESIDENT OF THE U. S.

JOHN ADAMS was born at Quincy, in Massachusetts, on the 19th October, (O. S.) 1735. He began to receive instruction in the school of the Pilgrims, at the earliest dawn of his intellectual perception. After completing his preparatory course, he was admitted a member of Harvard College, at Cambridge, in 1751, where he graduated at the end of four years. He soon after, having resolved to engage in the profession of the law, repaired to Worcester, and placed himself under the direction of an eminent barrister, of the name of Putnam. In 1758, he was admitted to the bar and settled with the intention of practising law, at Braintree; and in 1761, was admitted to the rank of a barrister. As his professional business increased, favorable opportunities were successively given him for exhibiting his talents to the public, and for attracting their attention; and, on these occasions, public approbation was liberally awarded to him. The first instance of material importance, in which Mr. Adams appeared publicly to advocate the cause of his country, was in 1765, when it was known that the "stamp act" had passed. On this occasion he published his "Essay on the Canon and Feudal Law"; an eleborate and bold appeal to the people. This publication ushered him rapidly into public notice. Though young, he was the same year associated with the distinguished James Otis and others, possessed of congenial feel-

ings, to demand, in presence of the governor and council, that the courts should dispense with the use of stamped paper. In 1766, he removed from Braintree to Boston. A short time before his removal, he was married to Miss Abigail Smith, daughter of a respectable clergyman of that name, with whom he lived more than half a century. When the militia were stationed at Boston on the pretended ground that their presence was requisite to enable the officers of the custom to execute the duties of their office, which was considered a violation of the rights of the citizens, he manifested much zeal, in opposition to the governor, and with others prosecuted measures for their removal from town. In these efforts, he exhibited such talents as induced Gov. Bernard to offer him the lucrative office of advocate general in the court of admiralty, thinking to detach him from his associates, and secure his aid on the side of the government. This he promptly rejected. The efforts of the people of Boston to effect the removal of the militia from town, proved unsuccessful, until after that affray, in which the soldiers fired on a collection of the citizens, and killed several in 1770, called *the Boston massacre*. After some delay, those who were supposed the guilty ones, were arrested and tried. Mr. Adams was applied to, and accordingly undertook their defence and conducted it in a manner which merited and received the applause of the community. That he lost no favor among his fellow citizens, is evinced by their choosing him their representative that same year. It was in the first assembly under Gov. Gage's administration, of which Mr. Adams was member, that the proposal for calling a Contenential Congress was made, in opposition to the governor. Of the five delegates then elected, Mr. Adams was one. On being admonished by some friend who thought this a bold measure, he replied, that "sink or swim, live or die, to survive or perish with his country, was his unalterable determination." He was also elected to the second Congress, which convened at Philadelphia in May, 1775. During this session Mr. Adams had the high honor of nominating Gen. Washington as commander of the armies of the United States, which received the unanimous approbation of Congress. In May, 1776, he introduced a motion to Congress, almost equivalent to a Declaration of Independence, and which directly led to it—*that the colonies should form governments, independent of the crown.* He was one of the committee for

preparing a draft of a Declaration of Independence, and it is believed that we shall not exceed the limits of truth when we say, that Mr. Adams was the most efficient agent in procuring a public Declaration of the Independence of the U. States, of all those who were concerned in that memorable achievement. Soon after the decision of the great question of independence, he was elected by the Legislature of Massachusetts, as a member of their council, and also a chief of their highest courts, the last of which offices he declined. He was a member of ninety, and chairman of twenty-five committees during the remainder of 1776 and 1777. From December, 1777, until the summer of 1779, he was minister to France. On his first voyage to France, in the engagement with an English ship, Mr. Adams seized a musket and engaged personally in the conflict with all the zeal of an experienced soldier. In 1779, he was appointed by Congress, a minister to Great Britain, to negociate a treaty of peace and a treaty of commerce with that government; and in 1785, he was appointed minister Plenipotentiary to the court of St. James. He returned in 1788, in the autumn of which year, he was elected Vice President of the U. S. In 1792, he was re-elected to the same office. Four years afterwards he was elected President. Sometime after he retired to his home at Quincy, he was offered a nomination as a candidate for governor of Massachusetts, which he declined. In 1820, the convention of the state, appointed for revising the state constitution, unanimously requested him to act as their President. The honor he declined on account of his age and infirmities.

In the autumn of 1818, he buried his consort, with whom he had passed more than half a century in conjugal felicity. But for himself, it was reserved to see half a century pass over, from the day when he fixed his signature, with his worthy compatriots, to the Declaration of American Independence and Sovereignty, as a nation among the nations of the earth. On that very day, while his fellow citizens were in joyful festivity, commemorating that event—on the day of jubilee, he, with another member of the committee which Congress selected to prepare the instrument, breathed his last, and closed his mortal existence on the earth.

This event, which occured near the close of his ninety-first year, so remarkable in many particulars, was extensively commemorated in the country, with many significant tokens of public mourn-

ıg, orations, and eulogies; in which the real sentiments and feelings of the people were frankly expressed.

From the Journal of Health.

MARRIED LIFE.—At the risk of encountering the jests of some of our friends, both married and single, we, poor lone bachelor folks, must again, in the sincerity of our hearts, admit, even though it be to our own condemnation, that Hufeland was perfectly correct when he enumerated a happy married state as one of the means of preserving health and promoting longevity. We do not feel ourselves equal to the task of examining, as a question of political economy, into the propriety of early marriages; we leave that to Malthus and his opponents, but we do believe, that this sacred union thus early formed, will greatly contribute to the general serenity of the parties in after life. The mere egotist may be heard to say that his time will be unduly taken up, and his attention absorbed, by the cares of a family. But if system, and a freedom from numerous little petty vanities be essential to success, the chances are in favor of the married man. His social relations are established on a well understood footing; the calls upon his time, for frivolous intercourse abroad, and the numerous interruptions to which he was subjected, as a bachelor, at home, in a great measure cease. The domestic engagements of one day serve as the measure of another, and he can calculate with tolerable precision on the period to be allotted to his business and study. When wearied by the daily struggle with his fellow men, in the road to wealth or professional distinction, the husband, while finding solace and repose at home, is also enabled to convert this period of rest into one of useful study and profitable reflection. In his family group, he is made fully aware of the relations which he has to sustain with the world at large, and of the responsibilities which he incurs, as well as the duties to be performed. After a fatiguing day's labor of body or of mind, and sometimes of both, he is not driven, as too often happens to the bachelor, into the society of the frivolous—happy if not the dissolute—to divert his attention; nor need his sensibilities, worn down by collision in the crowd, or rivals in the career of ambition, be roused by unnatural excitement—the contagion of folly, the intoxicating bowl, or the midnight revel.

The single man, who should even disdain recourse to idle recreation, and should stand aloof from companions capable of inspiring or of receiving his esteem–whose whole soul should be directed to the onward march for wealth, reputation, and honors and who should exhaust in this channel the disposition to love and friendship, the softer emotions of sympathy and benevolence, will still just escape misery. Happiness he knows not: he feels, and he must sometimes, like the unfortunate youthful poet, exclaim, that he has lived "an unloved solitary thing." At times he may, perhaps persuade, himself, that affections silenced are dead; and that his long assumed coldness and reserve are but philosophical equanimity, and a protection against the world's idle curiosity and intrusive pity, for sorrows and disappointments which it would never have spontaneously either averted or soothed. But there are moments in which he feels that he is exercising a constraint on himself: and although from long habit, he may believe that the armour of indifference sits easy on him, he cannot, after all, remain entirely insensible to the irksomeness of his condition. In brief, neither the fulness of happiness nor of health can be experienced, if the affections and sentiments are unduly constrained, or irregularly and unnaturally exercised; and where, it may be asked, can the feelings so fully and appropriately expand themselves as in the matrimonial state, and in the discharge of the various duties required of those who enter it? It will, we apprehend, be found that the greater number of those distinguished men in the arts and sciences, and in the liberal professions, who had to struggle the most under the pressure of poverty and other adverse circumstances, were married in the early part of their career, and during or before the seasons of their greatest trials. Fewer unmanly concessions and sacrifices to principle, fewer examples of cowardly flight from the world by suicide, will be found among the married than the single, in the first eventful period, in which a man begins to play his part in the drama of life.

From Cuvier's Animal Kingdom.

Serpents.—It is but rarely that the serpents will attack man without being highly provoked to do so, and we may observe that their poison is more subtle and active in proportion to the heat of the climate which they inhabit. The hot and humid steppes

and savannahs of Asia and America, and the burning sky of the African deserts, seem by far the best suited to the multiplication and development of these reptiles. Only 15 or 16 of their species inhabit Europe, while Russel has described 43 merely for the coasts of Bengal Coromandel. Equatorial America, scorched by the burning rays of the sun, and incessantly watered by those immense rivers which roll the tribute of their waves towards its eastern boundaries, furnishes, of itself alone, according to the observation of M. de Humboldt, 115 species, out of 320 which have been described in the ophidian order. In the provinces which it contains, the earth, peculiarly lavish in the support of poisonous weeds and hurtful animals, has peopled with impure and dangerons reptiles the inundated morasses, and yet untrodden forests of these mighty regions. They swarm in Surinam, in French Guiana, in Peru, in Brazil, in the neighborhood of the Lower Orinico, in Nicaragua, Panama, and Cassiquiare. Twice a year they lay an immense number of eggs, and are so excessively abundant, that when the natives set fire to the brushwood, &c. with which the country is covered, whole armies, as it were, of formidable serpents, sally forth, in all directions, in crowded ranks, to the number of thirty or forty thousand at a time, covering acres, and putting all to flight before them. But in colder climates a few individuals only are found scattered over a large extent of territory. They begin to be rare enough in Germany and Russia, still more so towards Siberia, and totally disappear as we approach the polar regions.—Neither are they ever found upon high mountains, beyond an elevation of five or six thousand feet, as has been observed on the ridge of the Cordilleras, on the platforms of Sante-Fe de Bogota, on the Andes, at Antisana, and Pichincha. But among all the known serpents, there is scarcely one-sixth or one-fifth part of them that may be considered of a really dangerous character. Among the forty three species of the East Indies, described by Russel, seven alone are to be feared; and in the enumeration of the ophidians which were known in his time, by Daudin, there were eighty venomous species, and two hundred and thirty three not venomous. In America, one race alone in five, and one in four in Europe, are redoubtable for their poison. The others are innocent animals, which creep upon the surface of the earth.

From the Ladies' Mirror.

FEMALE PIETY.

Who does not admire the pious woman? one who always looks out upon life and its vicissitudes with glad feelings and buoyant hopes. We do not believe that there is any thing which tends more to elevate the female in the estimation of man, than a cheerful and unyielding piety. This gives an additional enchantment to the spell which beauty flings around her, and causes many who might otherwise remain callous to his impressions to feel the gentle influence of love. Every one admires a being whose heart is the home of christian feelings, and even Byron himself, with all his sullen misanthropy and irreligious gloom, still "loved devotion in women." I cannot speak of all the different relations which the sex bear in society—but the daughter—the mother—and the wife—who has not seen what a beautiful and angel-like influence is given to their characters, by a meek and unsullied piety! The timid daughter watches with tender solicitude the infirmities of her aged parent, and while the pulses of life yet beat, is ready to administer to all his wants, and support him as he totters on to the grave.—She bends over his couch and hears him pray for her happiness. She receives his last benedictions, and beholds those gathered tears start—

——"Which pious fathers shed
Upon a duteous daughter's head."

The pious mother moulds the tender intellect, and forms a taste for pure and elevated christianity. She teaches her infant child to lisp his earliest accents in adoration of the Deity, and leads him to think of that

————"Well heaven'd isle,
Where spices breathe and brighter seasons smile."

She pours over him the deep devotions of her love and like a guardian angel protects him through the helpless period of his young existence. Her counsels are deeply engraven on his mind, and as he goes forth to mingle in the mercenary throng of the world, he does not forget the regard which is due to her interest and anxiety.

And where can the husband better turn for relief from his busy and soul-corroding cares? Where *does* he turn except to home—to the happy and quiet fireside, where a pious consort

meets him with sweet and cheerful smiles? She is the centre of all his enjoyments, and a ready sharer in all his prosperity or adversity. She sympathizes with him in his distresses, and like the beautiful Jewess in Ivanhoe, pours a healing unction into the wounds which misfortune has made. She never embitters by a frown the anguish of his troubled spirit—but always—wears the same soothing and complacent aspect. Such domestic happiness is the poetry of man's existence. It is the "only bliss of Paradise," which Cowper tells us "has survived the fall," and who would not seek to obtain it? Let the vestal flame of piety be once lighted up in the breast of woman, and it diffuses a warmth and loveliness over her whole character. E.

From Wilson's American Ornithology.

THE BALD EAGLE.—"Elevated on the high dead limb of some gigantic tree that commands a wide view of the neighboring shore and ocean, he (the eagle) seems calmly to contemplate the motions of the various feathered tribes that pursue their avocations below; the snow white gulls slowly winnowing the air; the busy tringæ scouring along the sands; trains of ducks streaming over the surface; silent and watchful cranes, intent and wading; clamorous crows; and all the winged multitude that subsist by the bounty of this vast liquid magazine of nature. High over all these hovers one whose actions instantly arrest his whole attention. By his wide curvature of wing, and sudden suspension in the air, he knows him to be the fish hawk, setting over some devoted victim of the deep. His eye kindles at the sight, and balancing himself with half-opened wings, on the branch he watches the result. Down, rapid as an arrow from Heaven, descends the distant object of his attention, the roar of its wings reaching the ear as it disappears in the deep, making the surges foam around! At this moment, the eager looks of the eagle are all ardor; and leveling his neck for flight, he sees the fish hawk once more emerge, struggling with his prey, and mounting in the air with screams of exultation.—These are the signals for our hero, who, launching into the air, instantly gives chase and soon gains on the fish hawk; each exert his utmost to mount above the other, displaying in these recountres the most elegant and sublime ariel evolutions. The unincumbered eagle rapidly advances, and is just on the point

of reaching his opponent, when, with a sudden scream, probably of despair and honest excreation, the latter drops his fish; the eagle, poising himself, for a moment, as if to take a more certain aim, descends like a whilwind, snatches it in his grasp ere it reaches the water, and bears his ill-gotten booty silently and triumphantly into the woods."

PROPOSED VOLUME OF ORIGINAL POETRY.

BY MISS ELIZABETH ALLEN.

In the second number of the Repository we inserted the Polanders' Welcome, a very pretty article, over the signature, ADA, and we then offered a few remarks respecting the Authoress and her productions. We have since received two or three communications from her, and we are now informed that she contemplates revising and publishing a small volume of her fugitive pieces, not so much to acquire fame as a writer, as for the pecuniary assistance which she hopes to derive from the sale of the work. We have no personal acquaintance with Miss Allen, but we are informed that she is an aimable and respectable young lady, but truly the child of misfortune, being deprived of the use of her hearing, and yet, obliged to depend upon her personal exertions and the charity of her friends for subsistence. Her advantages for acquiring an education have been extremely limited and she makes no pretentions to a knowlede of any of the sciences, yet by her extensive reading, has acquired a considerable stock of general knowledge. Her productions indicate a mind of no ordinary character, and afford an assurance that, with the advantages for intellectual culture, which many of her sex possess, she would have had but few superiors. With all her disadvantages we have no doubt that she will furnish a pleasant volume, and we hope and believe, that it will be generally patronized not only in the circle of her extensive acquaintance, but by all who shall learn her misfortune. Should she receive sufficient encouragement the volume will be printed by Mr. C. Goodrich in the course of a few months.

Expedition West of the Rocky Mountains—Some roguish wight in Ohio has hatched out a fine story under this title, which is now going the rounds of the country papers, and takes admirably with the good people. The writer interlarded his story with so many

improbabilities, (we might say impossibilities,) as to make it manifest that he did not intend to have it believed. But it appears that our people are more credulous than he supposed. They have swallowed not only the bait, but hook, line and rod. Gen. Leavenworth will hardly thank the writer for his *downward* promotions, and for breaking his leg in two places; but he and the other survivors can congratulate themselves to their dying day upo their miraculous escapes from the *White* and the *Esau Indians*, and from snows *fourteen feet deep*; and when their second childishness arrives, how will they glow as they tell to their gaping grandsons the incidents of their long sojourn and describe to them the visions of the *six months night*, which they whiled so tedeously away, near the head of Columbia river.

From the Monthly Traveller.

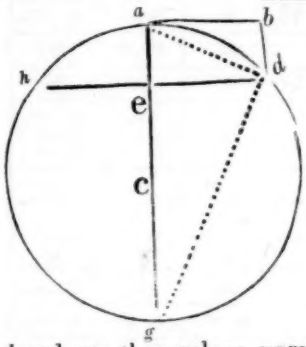
RAIL ROADS.—No subject has, since the foundation of the government, engrossed the public mind so entirely. The interest which has been excited arises from one of two causes—either from an expectation that Rail Roads would be profitable to individuals and the public, or from the hope that they would furnish the materials of speculation. A country cannot be so effectually improved in any way, as by internal communications. The greater the facility of communication, the more active will be social and commercial intercourse, and the transmission of the fruits of the earth and manufactures, and the dissemination of knowledge. The principle on which a Rail-way operates in the transportation of bodies, differs essentially from that of a Canal; in the latter, the body to be moved is sustained by the greater gravity of the fluid on which it is placed. Upon a canal, even with moderate motion the difference between the weight to be moved and the propelling power is great. The resistance lies in the gravity of the water, the nature of which cannot be altered or controlled. On a level Rail-way, the resistance lies in the friction at the axles of the carriages and the flexure of the rails, and it is not materially increased by the velocity.—Canals are confined to comparatively low districts on account of the supply of water; Rail-ways can be made to traverse any regions, and the ascents and decents are easily overcome, owing to the superiority of inclined planes over locks. Canals are effected by drought, floods, and frost; Rail-ways are not affected by the two first, and probably not by the last. The Bal

timote and Ohio Rail-road continued open and in use during the last year, while all communications by river or canal were suspended. The question of the practicability of Rail-roads in winter, is of more serious import, on account of the almost exclusive use of steam power on them; and should be decided before entering on the construction of any road, the utility of which would depend on the business in the winter. If, however, it would apply against Rail-roads, it would apply with greater force against Canals. The first mention of Rail-roads in England, is in 1600. It is only within a few years, however, that they have gone in general use, and their superiority to other modes of conveyance established. The length of all the Rail-roads in England is about three thousand miles. The introduction of the steam engine promises to work as great a revolution in affairs, as the application of steam to the purposes of navigation. Twenty years ago, the mails did not travel faster than seven miles an hour: how shall we estimate a discovery that carries us from 20 to 30 miles an hour? Experiments made in England, prove that we have not yet arrived at the greatest point of improvement. The present average rate of speed on the Manchester and Liverpool Rail-way is 16 miles an hour—the greatest velocity is 32 miles. With a load of 16 tons, Mr. Stevenson's engine (the Rocket) travelled at the rate of 16 miles an hour, and a London Engine at the rate of 28 miles an hour. Explosion, if it takes place, will not injure the passengers, as they are in a separate conveyance.

The practicability of Rail-roads has been fully tested. Many companies in England owning profitable canals, contemplate draining them, and substituting Rail-ways. From experiments on the English Rail-ways, it appears that the following were the results:—One pound moved 334 lbs. and kept it moving at the rate of 4 1-2 miles an hour. One pound moved 470 lbs. and kept it moving at the rate of three miles an hour. One lb. moved 616 lbs. and kept it moving at the rate of 2 1-2 miles an hour.

A Rail-way costs about two-thirds of a Canal, through the same route. A *single* Rail-way will cost from 9 to $12,000 per mile—a *double* Rail-way will cost from 15 to $18,000 per mile. Both of these estimates are made for a favorable country. The part of the Baltimore and Ohio Rail-road completed, of 61 miles, cost but little short of $20,000 per mile. One cent per ton per mile will, it is estimated, cover all the expenses of transportation on a Rail-way.

The daily expense of the engine on the Manchester road, England, is about $2,28 per day. Supposing the engine to carry 30 tons at the rate of 10 miles an hour, and to work 10 hours a day, performing 100 miles a day, the cost will be about 1-10th of a cent per ton per mile.



Solution of the Question proposed in the last number.—I. Let *a*, fig. 1st, be the gun, *b* the mark and *a d* the arc described by the ball. Draw the diameter *a g*, then as *a b* is a tangent it is perpendicular to *a g*; from the point *d* draw the cord *d h* parallel to *a b*; now since the diameter *a g* is perpendicular to the cord *d h*, *d h* is bisected by it in the point *e* and *h e*=*e d* and *e d*=*a b* because they are between the same parallels *a e* and *b d* and are themselves parallel. Now by Euclid, Book III, Prop. 35, the rectangle contained by the two parts of the diameter *a e* and *e g* equals the rectangle contained by *h e* and *e d* or, (since *h e*=*e d*,) the square of *e d*, but *e d*=20 rods=3960 inches, by the question and *a e*=*b d*=1 inch. Then by proportion, *a e* :: *e d* :: *e d*: *e g*; or 1 inch : 3960 inches : : 3960 : *e g*, and by working the proportion we find *eg* to be 15681600 to which add *a e*=1 and we have 15681601=247½ miles 1 in. for the diameter of the circle. T.

Second Solution.—Let *a*, *b* and *d* represent the same as in the former case; draw the diameter *ag*, the cords *ad* and *dg* and the perpendicular, *d e* then the triangles being similar *ae* : *ed* : : *ed* : *eg*, or, *ae* and *ed* being given, 1 : 3960 : : 3960 : 15681600. Thus *ag*= 15681600+1=15681601*in.*=247½ miles and 1 inch. J. B. J.

Note.—The question solved above supposes the bullet to describe an arc of a circle, but this is not true in fact. The line which a bullet, projected horizontally, would describe in falling to the earth by the force of gravitation, if we suppose it to be unaffected by the resistance of the air, would be a parabola, and the atmospheric resistance is not such as materially to alter the curve.

Question.—The distance across Lake Champlain from Burlington to Port Kent, is 9 miles 200 rods; how far will a level, or horizontal line, which touches the surface of the water at the Burlington shore rise above the water if extended across to Port Kent? *The answer and method of solution required.*

METEOROLOGICAL

BURLINGTON, Vt., Lat. 44° 27′. Long. 73° 14′. Altitude above Lake

1832.		*Thermometer.*			*Barometer.*			RAIN	*Winds.*		
APR.		S. R.	1 P.M.	9 EV.	S. R.	1 P.M.	9 EV.	Inch's	Morning.	Noon.	Evening.
1	G	39	39	32	29.10	28.95	29.20	.07	S.	N. W.	N. W.
2	2	25	33	35	29.20	29.40	29.35		W.	N. W.	W.
3	3	38	44	31	29.10	29.10	29.15	.08	S.	S.	N.
4	4	20	40	28	29.50	29.15	29.25		N. W.	S.	N. W.
5	5	17	32	24	29.65	29.20	29.85		N.	N. W.	N. W.
6	6	16	33	26	29.95	29.95	29.90		N. W.	N.	N.
7	7	25	50	34	29.75	29.55	29.65		S. W.	S.	N.
8	G	20	28	21	29.85	29.85	29.90		N.	N.	N.
9	2	14	33	27	30.00	29.90	29.80		N.	N.	S. W.
10	3	28	42	36	29.75	29.65	29.50		S. W.	S. W.	S. W.
11	4	34	49	36	29.45	29.40	29.80	.26	N. E.	N.	N.
12	5	34	66	54	29.40	29.15	29.00		S.	S.	S.
13	6	50	72	50	29.15	28.95	28.85		S.	S.	S.
14	7	31	48	34	29.20	29.10	29.35		N.	N.	N.
15	G	32	49	42	29.50	29.45	29.45		N.	N.	S.
16	2	40	45	47	29.45	29.35	29.45		S. E.	S. E.	S. E.
17	3	36	44	40	29.50	29.45	29.45		S. E.	N.	N.
18	4	36	44	40	29.50	29.45	29.40	1.22	N.	N.	N.
19	5	36	44	36	29.45	29.45	29.45		N.	N.	N.
20	6	35	40	39	29.45	29.45	29.35	.09	N.	N.	N.
21	7	32	56	42	29.40	29.20	29.30		N.	S.	N. W.
22	G	30	36	30	29.50	29.50	29.70		N.	N.	N.
23	2	17	45	34	29.85	29.65	29.50		N.	N.	N.
24	3	29	40	31	29.65	29.60	29.70		N.	N.	N.
25	4	36	64	60	29.60	29.30	29.00		S.	S.	S.
26	5	58	72	59	28.95	28.80	28.75	.11	S.	S. W.	S.
27	6	50	54	42	28.95	29.15	29.50		N.	N.	N.
28	7	36	54	45	29.55	29.55	29.60	.13	E.	S.	S. E.
29	G	40	58	46	29.65	29.55	29.60		S. E.	S.	S.
30	2	44	53	49	29.65	29.50	29.35		S.	S.	S.
MEAN		32 .6	47.2	38.3	29.47	29.39	29.43	1.96	Gen'l mean Ther. 3.94		

JOURNAL.

Champlain 250 feet. Distance from the Lake, one mile East.

Weather.				Remarks.
D.	Morn.	Noon.	Even'g.	
1	*Clear*	*Fair*	*Clear*	Several snow squalls.
2	*Fair*	*Clear*	*Fair*	*Gen. Green out*, 1827.
3	*Cloudy*	*Rain*	*Cloudy*	
4	*Clear*	*Cloudy*	*Snow*	*Gen. Green out*, 1826.
5	*Cloudy*	*Clear*	*Clear*	Ground white with snow.
6	*Clear*	*Clear*	*Clear*	*Phœnix out*, 1829
7	*Clear*	*Clear*	*Clear*	
8	*Clear*	*Clear*	*Clear*	
9	*Clear*	*Clear*	*Clear*	
10	*Cloudy*	*Cloudy*	*Fair*	[1831.
11	*Rain*	*Fair*	*Clear*	Smoky.—*Phœnix and Franklin out*
12	*Clear*	*Clear*	*Clear*	Hoar frost.
13	*Clear*	*Clear*	*Clear*	Frogs croak. Smoky.
14	*Fair*	*Clear*	*Clear*	
15	*Cloudy*	*Clear*	*Cloudy*	*Congress out*, 1823.
16	*Cloudy*	*Cloudy*	*Rain*	
17	*Rain*	*Rain*	*Rain*	Lake broke up.—Gen. Green out.
18	*Cloudy*	*Clear*	*Clear*	Broad lake clear of ice.—Boats and
19	*Fair*	*Cloudy*	*Rain*	Sloops out.—*General Green out* 1829.
20	*Cloudy*	*Cloudy*	*Cloudy*	*Franklin out*, 1829.
21	*Clear*	*Clear*	*Cloudy*	
22	*Clear*	*Snow*	*Clear*	
23	*Clear*	*Clear*	*Cloudy*	Franklin out.
24	*Clear*	*Clear*	*Clear*	
25	*Cloudy*	*Clear*	*Clear*	Phœnix out.
26	*Fair*	*Fair*	*Cloudy*	Barn swallows appeared.—*Phœnix*
27	*Fair*	*Clear*	*Cloudy*	*out* 1819.
28	*Snow*	*Fair*	*Clear*	*Swallows appeared in* 1828.
29	*Cloudy*	*Cloudy*	*Clear*	
30	*Cloudy*	*Cloudy*	*Rain*	

Barometer, 29.43 inches.

Additional Remarks.—By the preceding table, it appears that the mean temperature of April this year was 39.4 deg. being one tenth of a degree colder than the mean of Doct. Saunder's observations, and two tenths of a degree warmer than April, 1828. Range of the Thermometer from 14 to 78 degrees, equal to 60 degs. Range of the Barometer from 28.75 inches to 30 inches, equal to 1.25 inch

Although the temperature of April this year has not been lower than usual, the weather has been so uniformly cool that vegetation at the close of the month was extremely backward, there being very little grass, and the buds on the forest and fruit trees having scarcely begun to show themselves. Very little ploughing had been done by the farmers, and the people of the village had hardly begun to do any thing in their gardens.

LETTERS.—What little paper messengers these are to transport our thoughts from one quarter of the world to another! We trust to them our business, our hopes, our aspirations, and most secret thoughts. We venture to write with the pen things we never dare to say by words. What worlds would not tempt us to publish, we communicate to a letter, passing hundreds of miles, and through a thousand hands. This is the trust which we have in a single seal. We put all our confidence in crooked characters, whose lips are closed but by a single wafer. This is the trust in man. This is the worth of honor. But would we send the most unimportant affair unsealed? No, we risk every thing to the slender guard of a piece of wax, when we would not launch a single thought to the mail, without putting over it this honorable keeper. We lock up our thoughts in impenetrable secrecy; we put bolts upon our property at home, and yet with the thinnest piece of wax for a lock, such as can be broken almost without any effort, we trust our inmost secrets, and our most valuable property to hands that we know nothing of. Indeed, *this* is the worth of honor.—*Port. Adv.*

Fops.—There is no order of society which changes so often and so completely as that of the fops. Your miser always looks the miser; your arrogant man the arrogant; but a fop of forty years ago was a macoroni; of thirty a buck; of twenty a dandy; of ten an exquisite; of to-day an exclusive. What folly will come next?

What gives a cold—cures a cold—and pays the doctor?—a *draft.*

SUMMARY.

Creating a Waistcoat.—A young Quaker, from the country, went to London a few years ago; and being struck with the gaudy fashion of the times, commenced beau. Among other articles of dress, he ordered a blue satin waistcoat, trimmed with silver; and in this returned to his father, who, after staring at him, said, "How didst thou get this trumpery waistcoat, for the vain adornment of thy outward man?"—"I created it," said the son. "Created it!" echoed the father. "Yes," replied young Aminadab, "for I said, let it be made, and it was made."

An old Coat.—A spendthrift, who had nearly wasted all his patrimony, seeing an acquaintance in a coat not of the newest cut, told him he thought it had been his great grandfather's coat. "So it was," said the gentleman, "and I have also my great grandfather's land, which is more than you can say.'.

Genius.—I "know of no such thing as genius," said Hogath to Mr. G. Cooper: "genius is nothing but labor and diligence." Sir Isaac Newton said to himself, "that if he ever had been able to do any thing, he had effected it by patient thinking only."

Adam and Low.—At a church where there was a call for a minister, two candidates appeared, whose names were Adam and Low. The latter preached an elegant discourse from the text,—"Adam where art thou?"—In the afternoon Adam preached from these words,—"*Lo, here am I.*"

What is that which lives in winter, dies in summer, and grows with its root upward? An Icicle.

What is that which a Coach cannot move without, and yet is not of the least use to it? Noise.

The word "Fast"—Is as great a contradiction as we have in the language. The Delaware was *fast*, because the ice was immoveable; and then the ice disappeared very *fast*, for the contrary reason—it was loose. A clock is called *fast*, when it goes quicker than time, but a man is told to stand *fast*, when he is desired to remain stationary. People *fast*, when they have nothing to eat, and eat *fast*, consequently, when opportunity offers.

Good Remark.—A person once observed to an ancient Greek philosopher, that it was a great happiness to *have* what *we desire*. The sage replied, "But it is much greater happiness to *desire nothing* but what *we have*."

Cuffer and Cuffee.—A lawyer was asked lately to give the derivation of Cuffee, a word colloquially employed to designate the sons and daughters of Ethiopia. "Our community," said the legal gentleman, "is divided into two great classes; the whites, who are Cuffers, and the blacks, who are Cuffees."

Good Retort.—A French officer quarrelling with a Swiss, reproached him with his country's vice of fighting on either side for *money*, "while we Frenchmen," said he, "fight for *honor*." "Yes, sir, replied the Swiss, "every one fights for that he most wants.

A good book and a good woman—Are excellent things for those who know how justly to appreciate their value. There are men, however, who judge both from the beauty of their covering.

A good Man.—A virtuous man who has passed through the temptation of the world, may be compared to the fish who lives all the time in salt water, yet is still fresh.

POETICAL DEPARTMENT.

For the Green Mountain Repository.

CONTEMPLATION.

The sun, descending in the west,
Faint tinged the clouds with golden hue;
The woodland warblers were at rest,
And night her curtain slowly drew;—

When by a rill there sat reclined,
Absorbed in thought a blooming maid,
Whose look bespoke a balanced mind,
With every wayward passion laid.

Each evening here beneath the shade,
Which overhung her grassy seat
The fair one thus her homage paid,
In notes which seemed divinely sweet.

"Hail, Contemplation! sacred name!
Thy calm and tranquil joys impart:—
O may thy soothing presence tame
All that is savage in my heart.

"Tis sweet to rise at early dawn—
When first Aurora gilds the east,
And on the dew-besprinkled lawn
The mind with contemplation feast.

"But mostly when the day is o'er—
When labor from the field retreats—
When business' din is heard no more—
Is lonely contemplation sweet.

"When in the west the downward sun,
Withdraws from us its pleasing light—
The circling planets as they run—
The twinkling stars that cheer the night—

"The rising moon, when she displays
Her silver brightness o'er the stream;
The comet whose excentric ways,
To fearing man portentious seem.

"The northern lights, which dance and play
Their gambols round the icy pole;
The aspect which the heavens display,
To contemplation rouse the soul.

"By contemplation we can rove
Among the shining hosts on high
Pursue the endless chain of love,
Around the star-bespangled sky—

"Behold it from the earth ascend,
And upward undivided rise—
Without beginning, bounds or end,
Bind all to GOD above the skies

"But when Jehovah is the theme
And we his greatness strive to scan
His Majesty and power supreme
O'erawe the stoutest heart of man.

"But O what rapture fills my breast
And lifts my soul the earth above
When I survey the scheme of grace—
The wonders of redeeming love."

Q.

For the Green Mountain Repository

Lines Addressed to Mrs. C———of the Hartford Asylum, who is deaf and dumb.

The northern blast has ceased to roar,
And Spring again resumes her reign,
The giddy snows are seen no more—
But verdure robes the hill and plain.

The mild morn wakes and, with her smile,
Invites us o'er the flow'ry field;
Spring beauties now the sight beguile,
And pleasing admiration yield.

O come, Eliza—haste with me
And to the meadow's stream repair
Where nature's wonders we may see
"Above,—below—in earth, in air."

Behold the leaves—the blossoms view—
No plush so soft—no silk so fine—
No chemist's dyes give such a hue—
No weaver's art threads thus entwine.

And see—there loftier statues stand—
Their towering tops invade the sky,
Rising far o'er thy head, O man,
They the fierce winds of heaven defy.

On yon green hillock, see how gay,
The little lambkin sport and dance
How blithely pass their hours away—
Emblems of virtuous innocence.

And hark!—in yonder shady grove,
Do tuneful songsters raise their note?
Deep—fraught with melody and love,
Does it upon the soft air float?

Alas! dear friend we list in vain
Nor note—nor sound affects our ear; *
And, Oh! those sweet enchanting strains
We never—*never* more shall hear.

But cease our sighs—we'll murmur not,
Since charms unnumbered meet our view-
And though to *hear* be not *our* lot,
We'll see, and praise our Maker too.

ADA.

* The Authoress here alludes to her own deafness.—See page 88.